

APPENDIX A
Pending Claims

13. A process of obtaining photochromic latex comprising:
preparing a mixture comprising at least one organic monomer Z, which monomer comprises at least one C=C group and is polymerizable by a radical process, at least one organic photochromic compound, at least one surfactant, water, and a polymerization primer;
forming a miniemulsion of the mixture, the miniemulsion comprising an organic phase dispersed in an aqueous phase;
polymerizing of the reaction mixture, and
recovering photochromic latex.
14. The method of claim 13, wherein the polymerization primer is mixed with the other components of the mixture before formation of the miniemulsion.
15. The method of claim 14, wherein additional polymerization primer is added to the mixture after formation of the miniemulsion
16. The method of claim 13, wherein the polymerization primer is mixed with the other components of the mixture after formation of the miniemulsion.
17. The process of claim 13, further comprising degassing miniemulsion before the addition of the primer.
18. The method of claim 13, wherein the polymerization primer is added to the mixture during the formation of the miniemulsion.
19. The method of claim 13, wherein the organic phase is dispersed in the aqueous phase in the form of droplets having a diameter of 50 to 500 nm,

20. The method of claim 19, wherein the organic phase is dispersed in the aqueous phase in the form of droplets having a diameter of 50 to 300 nm.

21. The process of claim 13, wherein the organic monomer Z is an alkyl (meth) acrylate.

22. The process of claim 13, wherein the photochromic compound is a chromene or spirooxazine.

23. The process of claim 13, wherein the Z monomer is an alkyl methacrylate and the photochromic compound is a spirooxazine.

24. The process of claim 13, wherein the mixture further comprises at least one stabilization agent.

25. The process of claim 24, wherein the stabilization agent is an n-alkane, a halogenated n-alkane, a fatty alcohol, or an ester of a fatty alcohol.

26. The process of claim 25, wherein the stabilization agent is hexadecane, cetyl alcohol, or stearyl methacrylate.

27. The process of claim 13, wherein the polymerization primer is soluble in the aqueous phase or in the organic phase.

28. The process of claim 27, wherein the polymerization primer is azobisisobutyronitrile or 2,2'-azobis (2-amidinopropane) dihydrochloride or sodium persulfate.

29. The process of claim 13, wherein formation of the miniemulsion comprises passing the mixture through microfluidiser.

30. A photochromic latex prepared by a process comprising:

preparing a mixture comprising at least one organic monomer Z, which monomer comprises at least one C=C group and is polymerizable by a radical process, at least one organic photochromic compound, at least one surfactant, water, and a polymerization primer;
forming a miniemulsion of the mixture, the miniemulsion comprising an organic phase dispersed in an aqueous phase;
polymerizing of the reaction mixture, and
recovering photochromic latex.

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